

L 13218-65

ACCESSION NR: AP4047420

for the 104th elements. The experiments were made with the internal beam of a 300-cm heavy-ion cyclotron. The target was Pu^{242} and Ne^{22} ions were used for bombardment, so that the investigated reaction was $\text{Pu}^{242}(\text{Ne}^{22}, 4n)104^{260}$. The equipment consisted essentially of a variable-speed belt conveyor to transport the reaction products from the target to the detectors. The fragment detectors were silicate and phosphate glasses. The distribution of the tracks over the detectors yields information on the lifetime of the nuclei synthesized in the reactions. The results of the experiments yielded a half-life of 0.3 ± 0.1 sec for the 104 element with mass number 260 under spontaneous fission. The correctness of the results was checked by examining the form of the excitation function, the cross sections at the maximum, and the lack of an effect in control experiments with other particles and other targets. "The authors thank A. F. Linev, A. N. Filipson, I. A. Shelayev, and the cyclotron crew for reliable operation of the cyclotron, S. M. Polikanov and Ye. D.

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Donets for a discussion of the experimental results, and OyYaI director Professor D. I. Blokhintsev and the State Committee on the Use of Atomic Energy in the USSR for support of the work." Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 29Aug64

ENCL: 00

SUB CODE: NP, IC

NR REF SOV: 008

OTHER: 005

Cord 3/3

L-50733-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD:

ACCESSION NR: AP5016335

PO/0046/65/010/002/0081/0087

24
19
B

AUTHOR: Mikulski, J. (Mikul'ski, Ya.); Gawrilow, K. A. (Gavrilov, K. A.); Knobloch, V.

TITLE: Partition chromatography of transuranium elements in the system TBHP-TBPP/perchloric acid. Part II.

SOURCE: Nukleonika, v. 10, no. 2, 1965, 81-87

TOPIC TAGS: chromatographic analysis, metal extracting, americium, curium, fermium, mendelevium, perchloric acid

ABSTRACT: The extraction properties of the transuranium elements (Am, Cm, Fm, and Md) were studied using the method of partition chromatography with reversed phases in the system TBHP-TBPP(1:1)-HClO₄. The partition and separation coefficients for the pairs of elements Eu-Am, Eu-(Fm, Md), (Fm, Md)-Am, were calculated based on the data obtained from the extraction method and on the maximums of the chromatograms. The authors express thanks to Corresponding-Member of the AM SSSR, Professor G. N. Flerov for his constant interest and discussion of the results; to Doctor of Chemical Sciences, Irzhi Stary, and V. A. Yermako for their help in the processing of the results; to Z. Knoblokhova and V. Kochkov for their assistance in

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carrying out the experiments; to the group who operated the cyclotron for conducting the irradiation. The authors also thank Doctor of Chemical Sciences, T. Modro for his kind provision of the extractant; V.P. Perelygin for assistance in the partition chromatography method." Orig. art. has 6 graphs and 2 tables.

ASSOCIATION: [Mikulski] Institut Yadernoy Fiziki, Laboratoriya Khimii i Radiolokhii, Krakov (Chemistry and Radiochemistry Laboratory, Institute of Nuclear Physics);

[Gavrilow, K. A.] Ob'yedinenny Institut Yadernykh Issledovaniy, Laboratoriya Yadernoy Reaktsii, Dubna (Nuclear Reaction Laboratory, Joint Institute of Nuclear Research); [Knobloch, V.] Institute Yadernykh Issledovaniy ChAN, Rezh (Institute of Nuclear Research ChAN)

SUBMITTED: 03Jul64

ENCL: 00

SUB CODE: MM, GC

NO REF SOV: 002

OTHER: 003

NA

ml
Card 2/2

GAVRILOV, K.A., kand. geologo-mineralogicheskikh nauk; MIKHAYLOV, N.N., kand.
sel'skokhoz. nauk

Determining the amount of fertilizers. Zemledelie 26 no.7:88-95 J1 '64.
(MIRA 18:7)

GAVRILOV, K.I.

Role of earthworms in enriching the soils with biologically active substances. Vop. ekol. 7:34 '62. (MIRA 16:5)

1. Meditsinskiy institut, Stavropol'.
(Earthworms) (Growth promoting substances)

GAVRILOV, K.I.

Effect of extractions from the roots of ginseng on protozoans
and yeast fungi. Mat. k izuch. zhen'. 1 drug. lek. rast. Dal'.
Vost. no. 5:153-155 '63. (MIRA 17:8)

1. Stavropol'skiy meditsinskiy institut.

GAVRILOV, K.I., dotsent

Observations on experimental genetic variability in some
micro-organisms. Uch. zap. Stavr. gos. med. inst. 12:
157-158 '63. (MIRA 17:9)

1. Kafedra obshchey biologii (zav. dotsent K.I. Gavrilov)
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

GAVRILOV, K.I., dotsent; PARFENOV, M.L., assistant; GEOMOVA, L.I., assistant

Search for new medicinal plants in the Stavropol flora yielding
the antibiotics phytoncides. Uch. zap. Stavr. gos. med. inst.
12:159-160 '63. (MIRA 17:9)

1. Kafedra obshchey biologii (zav. kafedroy dotsent K.I. Gavrilov)
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

SAVILLOV, K. P.

Savrillov, K. P. "Pneumonia in newborns," Trudy Vsesoyuz. s'yezda del. vrachev, posvyashch. pamyati prof. Filatova, Moscow, 1946, p. 142-46

SO: U-3264, 10 April 1953, (Ietopis 'Zhurnal 'nykh Statov, No. 3, 1949)

CAVRILOV, K. P.

Osobennosti Razvitiia i Patologii Detei Perioda Novorozhdennosti (Particulars Concerning the Development of Newly Born Children), 270 p., Medgiz and Moscow, 1951.

GABRILOV, L.

"Solution of the direct and inverse potential problem for the paraboloid of rotation and the infinite parabolic cylinder,"

Iz. Ak. Nauk SSSR, Geograf. i Geofiz., No. 5-6, 1945

GAVRILOV, L.

"The Gravitational Field Created by an Infinite Number of Circular Cylinders",
Izvestiya AN SSR, Seriya Geograficheskaya i Geofizicheskaya, Vol. 13, No. 1, Jan/Feb 1949.

NARYSHKIN, I.I.; GAVRILOV, L.A.

Polarography of melts using a bismuth dropping electrode.
Zhur.prikl. khim. 37 no. 5:1130-1132 My '64. (MIRA 17:7)

VASIL'YEV, B.N.; GAVRILOV, L.F.

Friction of piston-unit parts in the GAZ-20 engine. Trudy Lab.dvig.
no.4:124-136 '58. (MIRA 12:11)
(Gas and oil engines) (Pistons)

VASIL'YEV, B.N., kand. tekhn. nauk; GAVRILOV, L.F., inzh.

Determining power consumption by automobile engine units. Vest.
mash. 38 no.3:21-24 Mr '58. (MIRA 11:2)
(Automobiles--Engines)

GAVRILOV, L. F.

Dissertation: "The Anatomy of the Nerves of the Human Pericardium." Cand Med
Sci, Second Moscow Medical Inst imeni I. V. Stalin, Moscow, 14 Jun 54.
(Meditinskiy Rabotnik, 4 Jun 54)

SO: SUM 318, 23 Dec. 1954

USSR / Human and Animal Morphology. Nervous System. S-2
Peripheral Nervous System.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64779.

Author : Gavrilov, L. F.
Inst : Ryazyan' Medical Institute.
Title : Nerve anatomy of Botal's Duct in Man.

Orig Pub: Materialy 19-y nauchn. Konferentsii Ryazansk.
med. in-ta po probleme "Anatomiya i patologiya
organov grudnoy polosti'", Ryazan; 1956, 6-9.

Abstract: The nerves of Botal's duct (BD) were studied in
18 dead fetuses and newly born of a length of
10.5 to 52 cm. The nerves of the BD are formed
from several sources and are unified by numerous
connections with the nerves of the heart, the
ascending part and the arc of the aorta, the pul-
monary artery, and other organs. The branches to

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USSR / Human and Animal Morphology. Nervous System. S-2
Peripheral Nervous System.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64779.

Abstract: the BD (frequently two to five branches with a caliber 0.1-0.2mm, and 0.2 - 1.5 cm in length) go off from the superior, medial and inferior sympathetic cervical bundles, of the left, from the left astroid bundle, from one to two sympathetic thoracic bundles, from the nerve plexus of the left subclavial artery, from the surface and the deep cardiac plexuses, from the trunks of the left recurrent and vagus nerves. In all subjects branches were observed from the medial and inferior sympathetic cervic bundles, in 5 subjects - from the left superior cervical bundle and from the superior cardiac nerve, in three subjects from the left recurring nerve and the asteroide bundle, in individual cases - from one to two thoracic

Card 2/3

USSR / Human and Animal Morphology. Nervous System. 3-2
Peripheral Nervous System.

Abs Jour: Ref Zhur-Biol., No 14, 1958 64779.

Abstract: bundles, the trunk of the left vagus, and the cardiac plexuses. More frequently the branches go off from the common small nerve trunk giving off branches to the aortic walls, the pulmonary artery, the BD, and the heart; less frequently, the nerves of the BD go off directly from the bundle or trunk of the nerve, and are distributed only in the walls of the duct. Having reached the BD, the nerves penetrate into its thickness and divide there. The greatest number of branches become imbedded in the thickness of the wall of the BD at the point of its separation from the pulmonary artery at the point of its entry into the aorta. -- I. B. Barabash.

Card 3/3

USSR / Human and Animal Morphology, Normal and Patho- S-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59839

Author : Gavrilov, L. F.; Hazhestkin, E. A.

Inst : Ryazan' Medical Institute

Title : Concerning Trabeculae Carneae Cordis in Man

Orig Pub: Materialy 19-y nauchn. konferentsii Ryazansk. med.
in-ta po probleme: "Anatomiya i patologiya organov
grudnoy polosti," Ryazan', 1956, 10-13

Abstract: Three types of trabeculae (T) were found on 11 pre-
parations: basal, loose, and composite. The T of
the left ventricle were well expressed on 9 pre-
parations, flattened on 2 and on 10 preparations,
traversed the anterior, posterior and external

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USSR / Human and Animal Morphology, Normal and Patho- 3-4
logic -- Cardiovascular System

Abs Journ: Ref Zhur-Biol., No 13, 1958, 59839

walls of the ventricle. In 4 cases, the T on the anterior wall were basal in type, while those located along the posterior and external walls of the ventricle branched out from the base of the posterior atrioventricular valve, turning downwards towards the apex of the heart, were basal in 5 cases, loose in 5 and composite in one case. The basal form of the T was 0.3-1 centimeters thick, 1.5-5 centimeters long and 3-7 in number; the loose type was 0.1-0.3 centimeters thick, 3.4-6 centimeters long and up to 40 in number. On all the preparations, the T formed a fine network on the apex of the heart. The T of the anterior wall were placed in two layers at right angles to each other on 9 preparations: a thin inner layer and a thick

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USSR / Human and Animal Morphology, Normal and Patho- 3-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1956, 59839

outer layer, while T were observed in the arterial cone on two preparations. On all the preparations, a T (1.6-6 centimeters long, 0.1-0.3 centimeters thick), directed downward and forward to the apex of the heart, branched out from the inferior part of the interventricular septum and joined to the T issuing from the posterior papillary muscle. The T of the right ventricle were thicker and not as evenly distributed, being found in 3 preparations along the anterior and medial walls, on 2, along the medial, anterior, and posterior walls and on 6, along the anterior and posterior walls. The T of the medial wall were basal in type, those of the anterior wall, basal (4) and loose (6) and those of the posterior wall,

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USSR / Human and Animal Morphology, Normal and Patho-
logic -- Cardiovascular System

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Abs Jour: Ref Zhur-Biol., No 13, 1958, 59839

(1), loose (4) and composite (2). The T of the
anterior and posterior walls always issued from
the base of the atrioventricular valve and headed
downward towards the apex of the heart. -- I. B.
Barabash

Card 4/4

1.3

USSR / Human and Animal Morphology, Normal and Patho- S-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59858

Author : Gavrilov. L. F.

Inst : Ryazan' Medical Institute

Title : The Age Aspect of the Morphology of Botallo's Duct

Orig Pub: Materialy 19-y nauchni konferentsii Ryazansk. med.
in-ta po probleme: "Anatomiya i patologiya orga-
nov grudnoy polosti," Ryazan', 1956, 175-182

Abstract: Botallo's duct (BD) was examined in 60 corpses of
fetuses and newborn infants 10.5-52 centimeters
long. In fetuses 10.5-12 centimeters long, BD was
about 2.25 millimeters long; the diameter of the
middle portion was 0.85-1.15 millimeters; the dia-

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USSR / Human and Animal Morphology, Normal and Patho- S-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59658

meter of the aortal orifice, 1.25-1.4 millimeters, of the pulmonary orifice; 0.85-1.2 millimeters BD was directed upwards and from right to left, forming an arc with the convexity at the top. In 16-19 centimeter fetuses, BD was 3-3.7 millimeters long; the diameter of the middle part was 1.25-1.75 millimeters, the diameter of the aortal orifice, 1.45-2.0 millimeters, of the pulmonary orifice 1.85-2.4 millimeters. In fetuses 20-25 centimeters long, the length of BD was 4-4.5 millimeters, the diameter of the middle section, 1.45-2.0 millimeters, of the aortal orifice, 1.85-2.4 millimeters, of the pulmonary orifice, 2.1-2.75 millimeters. In fetuses 26-29 centimeters long, the length of BD was 5-7 millimeters, the diameter of the middle

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USSR / Human and Animal Morphology, Normal and Patho- S-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59858

section, 2.5-3.25, of the aortal orifice, 2.5-2.75, of the pulmonary, 3-3.25 millimeters. In fetuses 30-35 centimeters long, the length of BD was 8, diameter of the middle section, 2.1-3.25, of the aortal orifice, 3.0-3.8, and of the pulmonary, 3.5-3.8 millimeters. In newborn infants, the length of BD was 11-13 millimeters, the diameter of the middle section, 3.5-3.8, of the aortal orifice, 4-5, of the pulmonary, 5.6 millimeters. In fetuses 25-41 centimeters long, the BD was directed almost horizontally from front to back and from right to left; in fetuses 43-50 centimeters long, the direction was from bottom to top and from right to left, with the arc curving upwards and to the left. Constriction of the aorta was always observed above

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USSR / Human and Animal Morphology, Normal and Patho- S-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59858

the orifice of BD, while dilatation of the descending aorta was observed below the orifice. Nerves connected with the nerves of the pulmonary artery, ascending section of the aorta, aortic arch and heart, came up to the walls of BD. The branches to BD originate from the superior, middle and inferior cervical sympathetic ganglia on the left, from the left stellate ganglion, from the 1st-2nd thoracic sympathetic ganglion, from the nerve plexus of the left subclavian artery, from the superficial and deep cardiac plexuses, and from the trunks of the recurrent and vagus nerves on the left. The presence of a sphincter in the BD wall suggests that BD functions as an organ regulating the blood flow in the cranial and caudal circuli of fetal

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USSR / Human and Animal Morphology, Normal and Patho- 3-4
logic -- Cardiovascular System

Abs Jour: Ref Zhur-Biol., No 13, 1958, 59858

circulation and that BD helps pulmonary circula-
tion to develop long before the pulmonary function
by flooding the pulmonary artery with blood. --
I. B. Barabash

Card 5/5

GAVRILOV, L.F., kandidat meditsinskikh nauk

Topographical anatomy of the pericardial nerves in man. Khirurgiya
32 no.8:50-53 Ag '56. (MLRA 9:12)

1. Iz kafedry normal'noy anatomii (zav. - deystvitel'nyy chlen AMN
SSSR prof. V.N.Ternovskiy) II Moskovskogo meditsinskogo instituta
imeni I.V.Stalina.

(PERICARDIUM, innervation
topographic anat.)

GAVRILOV, L. F.

EXCERPTA MEDICA Sec 18 Vol. 2/8 Cardio Aug 58

2310. *Topography of the nerves of the ductus botalli (Russian text)* GAVRILOV L. F.
Khirurgiya 1957, 10 (114—119) Illus. 4

The study is made on cadavers and dogs. The nerves of the ductus botalli originate in the branches of the left vagus and recurrens nerves and in the left sympathetic trunk. They form a system connected with superficial and extracardiac nerves as well as with the plexus of carotid, subclavicular and spinal arteries. They reach the ductus along both the anterior and the posterior walls of the arch of aorta. This is significant for proper anaesthesia. Close on the surface of the ductus run the left cardiac nerves, which is the feature to be taken into consideration during the operation.

Gibiński - Bytom (XVIII, 9)

USSR / Human and Animal Morphology (Normal and Pathological). The Peripheral Nervous System. S-2

Abs Jour: Ref Zhur-Biol., No 10, 1958, 45521

Author : Gavrilov, L. F.

Inst : Not given

Title : A Feasible Variant in a Cardiac Impregnation.

Orig Pub: Vest. khirurgii, 1957, 78, No 1, 100-101.

Abstract: At the investigation of fifty cadavers of different ages by macro- and microscopical preparations, in one case only, a 23-year-old woman, a nerve stem, 9 cm. long and 1 cm. wide, was disclosed, emanating from the left phrenic nerve, on the level with the superior edge of the aortic arch, and after perforating the pericardium and dividing into two equally thick stems, participating in the innervation of the heart. -- I.N. Mikhaylov.

Card 1/1

GAVRILOV, L.F., kand.med.nauk (Ryazan', ul. Dzerzhinskogo, d.54, kv.3)

Surgery in ductus arteriosus [with summary in English]. Vest.khir.
79 no.11:112-114 N '57. (MIRA 11:3)

1. Iz kafedry anatomii (zav.-prof. B.M.Sokolov) Ryazenskogo
meditsinskogo instituta im. akad. I.P.Pavlova.
(DUCTUS ARTERIOSUS, innerv.
anat. & surg. significance (Rus)

~~GAVRILOV, L.F.~~ (Ryazan', ul. Dzerzhinskogo, d.54, kv.3); KOLOMATSKIY, I.A.
(Ryazan', Bol'shaya ul., d.33, kv.1)

Two cases of cardiac ectopy. Arkh.anat.gist. i embr. 35 no.1:
113-114 Ja-F '58. (MIRA 11:4)

1. Iz kafedry normal'noy anatomii (zav. - prof. B.M.Sokolov)
Ryazanskogo meditsinskogo instituta imeni akad. I.P.Pavlova.
(CARDIOVASCULAR DEFECTS, CONGENITAL, case reports,
heart ectopy (Rus))

EXCERPTA MEDICA Sec 2 Vol 12/6 Physiology June 59

2335. THE NERVES OF THE DUCTUS ARTERIOSUS IN DOGS (Russian text) -
Gavrilov L. F. - BYULL. EKSPER. BIOL. I. MED. 1958, 46/7 (93-97)
Graphs 2 Illus. 2

In 20 adult dogs and newborn pups, the nerves of the ductus arteriosus were investigated by macro-microscopical and physiological methods. The nerves of the ductus are formed from the branches of the truncus sympathicus and the vagus nerve of the left side; 2 variations of nerve distribution were found: scattered and magistral. In the second variant, an individual nerve (the nerve of the ductus arteriosus) approaches the duct. Its diameter attains 0.75 mm. in newborn pups.

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Experiments showed that the nerve of the ductus arteriosus is a depressor. Its function changes with the age of the dog. The function is especially pronounced in puppies during the first 5 days of life, and is completely absent in adult dogs. The depressive function of the nerve of the ductus arteriosus is of use during the first period of postembryonic development, when the depressive function of Ludwig-Cion's nerve is absent.

(1, 2, 8)

GAVRILOV, L.F., kand.med.nauk (Ryazan', ul. Dzerzhinskogo, d.54, kv.3)

Topography of nerves of the anterior mediastinum. Nov.khir.
arkh. no.1:100-102 Ja-F '59. (MIRA 12:6)

1. Kafedra normal'noy anatomii (zav. - deystv. chlen AMN SSSR
prof. V.N.Ternovskiy) 2-go Moskovskogo meditsinskogo instituta.
(MEDIASTINUM--INTERVATION)

GAVRILOV, L.F. (Ryazan', ul.Dzerzhinskogo, d.54, kv.3)

Nerves of the pericardium and their origin. Arkh.anat.gist. 1
embr. 37 no.7:36-44 J1 '59. (MIRA 12:10)

1. Kafedra normal'noy anatomii (zav. - deystv.chlen AMN SSSR
prof.V.H.Ternovskiy) II Moskovskogo meditsinskogo instituta
im. N.I.Pirogova.
(PERICARDIUM, innervation)

OSTROVERKHOV, G.Ye., prof.; GAVRILOV, L.F., kand.med.nauk

Surgical anatomy of Botallo's ducts. Khirurgiia no.8:11-19
Ag '61. (MIRA 15:5)

1. Iz kafedry operativnoy khirurgii (zav. - prof. G.Ye. Ostro-
verkhov) II Moskovskogo gosudarstvennogo meditsinskogo insti-
tuta imeni N.I. Pirogova.
(DUCTUS ARTERIOSUS)

GAVRILOV, L.F. (Ryazan', ul. Dzerzhinskogo, 54, kv.3)

Anatomy of the phrenic nerve. Arkh. anat. gist. i embr. 41 no.10:
110-111 0 '61. (MIRA 14:12)

1. Kafedra normal'noy anatomii (zav. - deystvitel'nyy chlen AMN
SSSR prof. V.N.Ternovskiy) II Moskovskogo meditsinskogo instituta
imeni Pirogova.

(PHRENIC NERVE)

GAVRILOV, L.F. (Moskva, I-301, Alekseyevskiy studgorodok, I proyezd, d. 18,
kv. 26)

Functional closure of the ductus arteriosus (Botallo's). Grud.
khir. no.4:64-71 J1-Ag '62. (MIRA 15:10)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii
(zav. - prof. G.Ye.Ostroverkhov) II Moskovskogo meditsinskogo
instituta imeni H.I.Pirogova.

(DUCTUS ARTERIOSUS)

OTELIN, Aleksandr Antonovich; GAVRILOV, L.F., red.

[Innervation of the human skeleton] Innervatsiia skeleta
cheloveka. Moskva, Meditsina, 1965. 250 p.
(MIRA 18:4)

GAVRILOV, Lev Gavrilovich.

The basic pattern in the general plan of the Lower Volga Region.
Saratov, 1921. 92 p. maps. (52-58846)

HC337.V6G3

GAVRILOV, Lev Gavrilovich; IYEMZUITOV, V.M., red.; GOR'KOVA, Z.D., tekhn.
red.

[Earth regenerated by the October Revolution] Zemlia, vozrozhdenaia
Oktiabrem. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 180 p.
(Russia--Economic conditions) (Agriculture) (MIRA 11:7)

YALOVENKO, Fedor Ivanovich; CAVRILLOV, Lev. Gavrilovich

[Economics and organization of fruit culture and viticulture]
Ekonomika i organizatsiia sadovodstva i vinogradarstva. Moskva,
Gos.izd-vo sel'khoz.lit-ry, 1959. 378 p. (MIRA 13:3)
(Fruit culture) (Viticulture)

GAVRILOV, L.I.

Foci of quadratic curves. Uch zap. Ped inst Gerts. 197:43-53
158. (MIRA 16:9)

(Curves, Algebraic)

GAVRILOV, L.G., inzh.; OSTERNIK, E.S., inzh.

Mechanical tests of TGV-200 turbogenerators with instantaneous load drop. Elek. sta. 35 no.2:83-84 F '64.

(MIRA 17:6)

SAVRILOV, L.I.

Curvature of lines in Lobachevskii's geometry. Uch zap. Ped inst Gerts
197:212-214 '58.
(Geometry, Non-Euclidean) (MIRA 16:9)

MARKSHEVICH, L.I.

0 predelshaya, idn, polinomial, IV, o k-predelshaya, idn, polinomial. Kagan', Izv. Fiz.-
mat. o-va (3), 8 (1936)-(1937), 125-129.
Über f-polynome V. über k-fortsetzbarkeit der polynome. Kagan', Izv. fiz.-mat.
o-va (3), 12 (1940), 139-146.

SO: Mathematics in the USSR, 1917, 1947
edited by Kurosh, A.G.,
Markshevlch, L.I.,
Rachevshiy, F.K.
Moscow-Leningrad, 1948

Gavrilov, L. Solution of the direct and inverse potential-
problem for the paraboloid of rotation and for the infinite
parabolic cylinder (Addition). Bull. Acad. Sci. URSS.
Sér. Géograph. Géophys. [Izvestia Akad. Nauk SSSR]
10, 499-500 (1946). (Russian. English summary)
The paper appeared in the same Bull. 9, 521-528 (1945);
these Rev. 7, 302.

Source: Mathematical Reviews,

Vol 8, No. 4

2

Gavrilov, L. I. On the continuation of polynomials.
Uspehi Matem. Nauk (N.S.) 4, no. 3(31), 181-182 (1949).
(Russian)

The author states that, if $f(z) = 1 + a_1 z + \dots + a_n z^n$ is given and if C is a piecewise smooth closed Jordan curve enclosing the origin, then it is always possible to find a second polynomial of the form $f_1(z) = f(z) + a_{n+1} z^{n+1} + \dots + a_m z^m$ such that all the roots of $f_1(z)$ lie on C . No indication of the method of proof is given.

A. W. Goodman.

Goodman

Source: Mathematical Reviews,

Vol 11 No. 5

Gavrilov, L. I. On K -extension of polynomials. Mat. 1 - F/W
Sb. N.S. 36(78) (1955), 271-274. (Russian)
Let $f(z) = 1 + a_1 z + \dots + a_n z^n$ be any polynomial and let
 C be a closed Jordan curve containing the origin and
piecewise regular; then it is possible to find a polynomial
 $\phi(z) = b_1 z^{n+1} + \dots + b_m z^m$ such that $f(z) + \phi(z)$ has all its
zeros on C . Results of this kind were previously given by
the author [C. R. (Dokl.) Acad. Sci. URSS (N.S.) 32
(1941), 235-236; MR 3, 236] and Tchebotaröw [ibid. 32
(1941), 3-6; MR 3, 236]. S. Mandelbrojt (Paris).

Call Nr: AF 1108825

Transactions of the Third All-Union Mathematical Congress, Moscow; Jun-Jul '56,
Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Vulikh, B. Z. (Leningrad). Semiordered Rings

20-21

Mention is made of Domrachev, G. I.

There are 2 references, both of them USSR.

Gavrilov, L. I. (Leningrad). K-continued polynomials.

21

There is 1 USSR reference

21

Grantmakher, F. R. (Moscow). On Structural Lattice
stability of the Sum of Two Polynomials.

21

Gurevich, G. B. (Moscow). Algebra of A Group of Automorphisms
of an Arbitrary Standard Zero-algebra.

21-22

There are 2 references, both of them USSR.

Zavallo, S. T. (Cherkassy). Operator Free Groups.

22-23

86024

16.3000

S/020/60/135/003/002/039
C111/C222

AUTHOR: Gavrilov, L.I.

TITLE: K - Continuability of Polynomials 16

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol.135, No.3, pp.515-516

TEXT: Problem: Add further terms to the polynomial $f(z) = 1 + a_1 z + a_2 z^2 + \dots + a_n z^n$ so that the zeros of $f_1(z) = f(z) + a_{n+1} z^{n+1} + \dots + a_m z^m$ lie on $|z|=1$. From the Newton's formulas $s_1 + a_1 = 0$, $s_2 + a_1 s_1 + 2a_2 = 0$, $s_n + a_1 s_{n-1} + \dots + n a_n = 0$ it follows that the s_1, \dots, s_n remain the same during the continuation, where

$$(1) \quad s_k = \sum_{j=1}^m z_j^{-k}, \quad k=1, 2, \dots, n,$$

where z_1, \dots, z_m are the zeros of $f_1(z)$. For arbitrary s_1, s_2, \dots, s_n the z_1, z_2, \dots, z_m , $|z_i|=1$ can be chosen so that (1) is satisfied. (1) has the solutions

$$s_k = \sum_{j=1}^n N_j (e^{ik\alpha_j} + e^{-ik\alpha_j}) (z_{1j}^k + \dots + z_{jj}^k) e^{ik\alpha_j}, \quad k=1, 2, \dots, n,$$

Card 1/2

86024

S/020/60/135/003/002/039
C111/C222

K - Continuability of Polynomials

where ξ_{kj} are roots of $z^j = 1$, N_j are sufficiently large positive integers (the multiplicities of the roots). The α_j and ψ_j are determined successively.

For $j = 1$ it holds $s_1 = N_1(e^{i\alpha_1} + e^{-i\alpha_1})e^{i\psi_1} = 2N_1 \cos \alpha_1 e^{i\psi_1}$. If $s_1 = \xi_1 e^{i\psi_1}$,

then it holds $\cos \alpha_1 = \frac{\xi_1}{2N_1}$, $\psi_1 = \psi_1$. Then α_2, ψ_2 are determined from the second equation, etc.

There are 2 Soviet references.

PRESENTED: June 11, 1960, by P.S. Aleksandrov, Academician

SUBMITTED: June 10, 1960

Card 2/2

GAVRILOV, L.I.

K-continuity of polynomials. Dokl. AN SSSR 135 no.3:515-516 1960.
(JIM 13:12)

1. Predstavleno akad. P.S. Aleksandrovym.
(Polynomials)

GAVRILOV, L. K.

4

Electromotive forces in the system liquid metal slag
O. A. Rsin and L. K. Gavrilov (Ural Branch Acad. Sci. U.S.S.R., Sverdlovsk). *Izv. Akad. Nauk S.S.S.R., Khim. Tekh. Nauk* 1980, 1040-8. The e.m.f. were measured, at about 1600°, between a molten Fe electrode of const. C content, about 4.0%, and a molten Fe electrode of varying C content, 0.2-2.69%, in a molten slag made by fusion of finely ground CaO and Al₂O₃ in a graphite crucible, and analyzing Al₂O₃ 49, CaO 43, carbides (CaC₂ + Al₄C₃) 85%, or Al₂O₃ 38, CaO 57, carbides 8%. Under these conditions, the potential-detg. element is C. The e.m.f. *E* decreases regularly with increasing C content of the 2nd (C-poorer) electrode. Taken. of the activities *a*₁ and *a*₂ of C in the two electrodes requires the knowledge of the nature of the electrochem. process, i.e. of *n* in the expression $E = (RT/nF) \ln(a_1/a_2)$. In the presence of only one carbide, CaC₂, the ion involved would be C₂²⁻, and *n* = 1; on the other

hand, with only Al₄C₃ present, one would have *n* = 1. Actually, comparison of the free energy change calcd. from *E* and calcd. from the equil. C (dissolved in Fe) + CO = 2 CO by the data of Marshall and Chipman (C.I. 30, 6118), gives for the conditions of the present work, *n* > 2. This is accounted for, tentatively, on the assumption that the equil. $O^{2-} + 3 C_{(Fe)} = C_2^{2-} + CO$ and $4 AlO_2 + 9 C_{(Fe)} = Al_4C_3 + 6 CO + 2 O^{2-}$ are not significantly displaced in the immediate neighborhood of the 2 electrodes, and that all activities other than of C₂²⁻, Al₄C₃, and C₂²⁻ are correspondingly close around the 2 electrodes; this gives *a*₁ = *k*₁*a*₂ and *a*₁*a*₂ = *k*₂*a*₂², and *n* = 2. Activities *a*₂ of C dissolved in Fe, calcd. on this basis, are on the whole in quite satisfactory agreement with the values from the equil. data of Chipman (C.I. 43, 49304). N. Thon

1937

GAVRILOV, L. K.

USSR/Metals - Iron, Alloys

Aug 51

"Experimental Verification of the Electrochemical Theory in Respect to a System of Liquid Alloys of Iron With Carbon and Silicon," O. A. Yesin, L. K. Gavrilov

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 8, pp 1234-1242

Measured emf at 1470-1480° in system comprising 2 liquid Fe-C-Si alloys of various compn and slag contg CaO, MgO and SiO₂. Content of Si varied from 0.65 to 4.3% concn of C corresponded to satn. Used values of emf for calcg changes in free energy during transition of Si gram-atom from one Fe-C-Si

205T79

USSR/Metals - Iron, Alloys
(Contd)

Aug 51

alloy to another. Also calcd activities of Si in these alloys and compared with activities detd by nonelectrochem methods. Expts revealed existence of considerable concn polarization due to slow diffusion rate of ions in slag. Submitted by Acad I. P. Bardin 14 Feb 51.

205T79

USSR.

✓ The study of liquid iron-phosphorus alloys by the electromotive-force method. O. A. Esin, L. K. Gavrilov, and N. A. Vatolin. *Doklady Akad. Nauk S.S.S.R.* 85: 87-9 (1982); cf. *C.A.* 45, 6512h; 46, 9452i. — The e.m.f. of Fe-P alloys was detd. by using the following concn. cell: Fe, C_(sat.), P | CaO, MgO, SiO₂, Ca₃P₂, Mg₂P₃ | Fe, C_(sat.), 24% P. One electrode had a const. compn. (24% P), whereas the concn. of P in the other was varied from 1.5 to 23% P. The measurements were made at 1470°. The e.m.f. curve had a point of inflection at 23% P which indicated the presence of the compd. Fe₃P which dissoci. only to a slight degree as indicated by the value of the activity of P.

J. Kovtar Leach

Inst. of Chem and Metallurgy, Ural Affiliate, Acad Sci SSSR.

✓ 7480 TT-678

THE FORMS OF SILICA IN LIQUID SLAG. (O formakh
sushchestvovaniia kremnezema v zhidkikh shlakakh); O. A.
Esin, L. K. Gavrilov, and B. M. Lepinskikh. Translated by
G. Belkov from Doklady Akad. Nauk S.S.S.R., 89, 713-16
(1953). 6p.

The application of the emf method to the investigation of
liquid alloys has made it possible to prove experimentally
the existence of the stable compounds $FeSi$ and Fe_2Si at
470°C. It is therefore expedient to use this method to find
complex anions, for example $Si_2O_7^{2-}$, in molten slags. (auth)

GAVRILOV, L. K.

"Study of Fusion of Ferrous Metals by the EMF and Polarization Methods." Ural Polytechnical Institute imeni S. M. Kirov, Sverdlovsk, 1955. (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

GAVRILOV, L.K.

USSR

Electrode polarization at high temperatures. O. A. Bain and L. K. Gavrilov (Unit Branch, Acad. Sci. U.S.S.R., Inst. Chem. and Met., Sverdlovsk). *Zhur. Fiz. Khim.* 29, 566-76 (1955); *D. C.A.* 49, 7485k. — The polarization of liquid Fe-Si electrodes in melts of CaO 35, SiO_2 65, MgO 10% or CaO 60, SiO_2 30, MgO 10, Al_2O_3 10% linearly increased with c.d. up to about 0.3 v.; at a given c.d., the anodic and the cathodic polarizations were approx. equal. Increase of temp. from 1440° to 1620° lowered the polarizations 15-30-fold. The polarizations persisted after current was switched off at high temps. for, e.g., 30 min. and, after cooling to room temp., for a day. The results cannot be accounted for by either slow discharge or slow diffusion alone; they were similar to those observed in solid glasses. The commutator method of measuring polarization was more suitable than the compensation method. J. J. B.

GAVRILOV, L.K.; YESIN, O.A.

Variation in time of electrode polarization for oxidic melts. Zhur.fiz.
khim. 29 no.4:635-641 Ap '55. (MLRA 8:8)

1. Ural'skiy filial Akademii nauk SSSR, Institut khimii i metallurgii.
(Polarization (Electricity)) (Oxides)

CHVETILOV L.K.

USSR/Physical Chemistry - Electrochemistry

B-12

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3961

Author : Yesin O.A., Gavrilov L.K.

Title : Electrode Polarization in Fused Silicates and Formation of Divalent Silicon

Orig Pub : Zh. fiz. khimii, 1956, 30, No 2, 374-378

Abstract : Determination of electrode polarization in silicate slags (43% SiO, 46% CaO, 10% MgO, remainder phosphides) at 1490-1610°, by the commutator method. Liquid ferro-phosphorus (23% P) was used as the electrodes. On comparing the results obtained with previous determinations (RZnKhim, 1956, 12533, 12534), the authors arrive at the conclusion that polarization in fused silicates exhibits the same regularities as in the case of the use of FeSi electrodes. It is shown that the cause of polarization can be not only slowed down deformation and orientation of complex silicon-oxygen anions but also an accumulation

Card 1/2

- 202 -

USSR/Physical Chemistry - Electrochemistry

B-12

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3961

at the electrodes of Si^{2+} due to its slow diffusion
in the viscous melt.

Card 2/2

- 203 -

Akademiya nauk SSSR, Ural'skiy filial. Institut metallurgii

Study, Vyp. 4 (Transactions of the Institute of Metallurgy, Dual Branch, Academy of Sciences, USSR, No. 4) Sverdlovsk, 1958. 157 p. Errata slip inserted. 1,000 copies printed.

Literature Board: **I. A. Votola** (Resp. Ed.), Candidate of Technical Sciences; **A. S. Minulin**sky, Professor, Doctor; **V. A. Miller**, Professor; **F. A. Pasnik**ov, Candidate of Technical Sciences; and **S. S. Lisay**ev, Candidate of Technical Sciences; **Ed.: N. S. Baranovskaya**.

WARNING: This book is intended for ferrous and nonferrous metallurgists.

CONTRIBUTORS: The book presents results of investigations of theoretical problems in metallurgy and chemistry and gives information on the efficient use of materials in ferrous and nonferrous metallurgy and on the development of the production processes in the metallurgical and chemical industries. The sections are written by junior scientists and experienced specialists of the scientific staff of the Institutes of Metallurgy, Chemistry, and Electrochemistry, Ural Branch, Academy of Sciences, USSR, Chervin, A.V., T.V. Sapozhnikova, and B.M. Lyagina. Electrical Resistance and Phase Composition of Aligned Titanium During the Hot-Chamber Pressing Process

SAITOV, G.A., and Ye.A. VETRENKO. On the Connection Between the Kinetics of the Vaporization of Solids and the Pressure of Saturated Vapor

Wardner, J. J., and H. P. Dwyer (Decreased). Behavior of Germanium During the
Oxidation of Halide Concentrates
Wardner, J. J., and M. J. Kochner. On the Reduction of the Lower Halides of
Germanium and Cobalt

Starkov, L.N., and M.Y. Kochnev. Oxidation of the Lower Salivaries of Mice.
Dokl. Akad. Nauk SSSR, 1967, 176, 1333.

Chelmsworth, N.Y., and M.V. Chelmsworth, Polarization of Beryllium-Oxide-Carbon
in the Fixed Column

Shurshakov, M.M., L.I. Gerasimov, and P.A. Pavlov. Investigation of the conditions for electrodeposition of copper from halate solutions in the presence of iron, zinc, and cadmium cations and the nitrate anion.

Trishberg, I.V., A. Fedunikov, and L.K. Gerasimov. Some Prerequisites for the Electrolytic Production of Lead Sponges From Alkaline Chloride Solutions and Selection of Insoluble Anodes for Electrolysis

Shchegolev, G.N. Some Peculiarities of the Reaction of Melanite With Soda
in Aqueous Media During the Sintering Process
Shchegolev, G.N., and B.I. Runovskiy. Optimum Conditions for Leaching Soda-
Melanite Sinter Cakes

Kulinskii, A.S., and G.S. Kozhevnikov. Production of Metallic Sodium by
Carbon Reduction of the Sulfate or Carbonate (Exploratory Tests)

Ilakirev, V.P., Ye.A. Vetrunko, A.A. Pichchenko, and A.A. Babalashin. On the Problem of Passage of Zinc From [Copper] Matte to the Gaseous Phase During Air Blast

XXX-X-¹¹, S.A. Yerminevich, and N.P. Dyev (Deceased). Comparative Data on the Carrying of Liquid Into the Gas-exhaust Holes in an Experimental Converter

Chaylov, V.V., B.N. Rudinov, and V.I. Zemtsov. On the Behavior of Oxides of Boron During the Metallurgical Treatment of Boron- α Ores

1968 in the Cupola On the Melting and Overheating of
bichev, A.V., and V.P. Chernobrovkin. Chernobrovkin, A.V., and V.P. Chernobrovkin.

the composition of the iron dross in chemical composition and the content of pig iron during cupola melting.

ner, Yu. L. On the Deposition of Ferrotitanium Reguli

1
Investigation of the Copolymers of Poly-1,3-
Vinyl Glycid Ether and Styrene

soluble with olefins

10

GAVRILOV, L.K.; ZHURAVLEV, M.M.; PAZDNIKOV, P.A.

Electrodeposition of copper from sulfate electrolytes in presence
of zinc and iron. Trudy Inst. met. UFAN SSSR no.2:235-242 '58.
(MIRA 12:4)

(Copper--Electrometallurgy)

ZHURAVLEV, M.M.; GAVRILOV, L.K.; PAZDNIKOV, P.A.

Studying conditions of the electrodeposition of copper from
sulfate solutions in presence of iron, zinc, cadmium cations,
and NO_3 anions. Trudy Inst. met. UFAN SSSR no.4:51-58 '58.
(MIRA 12:10)

(Copper--Electrometallurgy)

FRISHBERG, I.V.; PAZDNIKOV, P.A.; GAVRILOV, L.K.

Certain prerequisites for the electrolytic preparation of lead
sponge from alkali metal chloride solutions and selection of
insoluble anodes for electrolysis. Trudy Inst. met. UFAN SSSR
no.4:59-64 '58. (MIRA 12:10)
(Lead--Electrometallurgy)

GAVRILOV, L.N.

Pollution of the water-bearing level with effluents containing
chromium. Gig. i san. 26 no. 6:76-77 Je '61. (MIRA 15:5)

1. Iz Vladimirskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(WATER--POLLUTION) (CHROMIUM)

L 23246-66 EMT(1)/EPF(n)-2/ETC(m)-6 WW/GG

ACC NR: AP6007789

(N)

SOURCE CODE: UR/0114/66/000/002/0041/0042

AUTHOR: Gavrilov, L. R. (Engineer)

ORG: none

TITLE: Experimental investigation of spectral distribution of cavitation nuclei in water

SOURCE: Energomashinostroyeniye, no. 2, 1966, 41-42

TOPIC TAGS: spectral distribution, cavitation, nucleus, water, water supply system, ultrasonic absorption

ABSTRACT: A method of measuring the spectral distribution of cavitation nuclei in liquid in the form of gas bubbles is described and the results of tests for determining the number of nuclei in the water supply line are given in the original article. The tests were conducted at the Central Scientific-Research Design and Planning Boiler and Turbine Institute im. I. I. Polzunov. The property of gas bubbles to cause absorption of ultrasonic energy propagating in the medium water-gas bubbles was established as a means for measuring the spectral distribution of cavitation nuclei. It was also shown that the basic causes of ultrasonic energy absorption were: 1) the transfer of heat from the bubbles to the liquid during periodic changes in volume under the effect of a sound wave, 2) dissipation of a part of the energy, since a bubble of resonance dimensions becomes itself a spheri-

Card 1/2

UDC: 620.193.16.001.5

L 23246-66

ACC NR: AP6007789

cal emitter of sound. Orig. art. has: 2 figures, 2 formulas, and 1 table. [Based
on author's abstract.] [NT]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 002/

Card 2/2 *HW*

ACC NR: AP7005392

(N)

SOURCE CODE: UR/0114/67/000/001/0045/0046

AUTHOR: Gavrilov, L. R. (Engineer)

ORG: none

TITLE: Stabilization of cavitation nuclei in a fluid

SOURCE: Energomashinostroyeniye, no. 1, 1967, 45-46

TOPIC TAGS: water, fresh water, cavitation

ABSTRACT: The hypothesis that the presence of solid impurities inside or on the surface of gaseous bubbles in water compensates their positive buoyancy is discussed and its experimental proof is described. Th proof is based on the experimentally confirmed fact that the absorption of ultrasonic energy by introduced gaseous bubbles is in natural water much higher than in distilled water. This fact, which is graphically illustrated, leads to the conclusion that the longer existence of bubbles i natural water than in distilled water is due to their compensated positive buoyancy by present impurities. Orig. art. has: 1 figure.

SUB CODE: 20 / SUBM DATE: none/ ORIG REF: 002

Card 1/1

UDC: 620.193.001.5

L 36335-66 EWT(d)/EWP(1) GD

ACC NR: AT6012898

SOURCE CODE: UR/0000/65/000/000/0197/0214

AUTHOR: Gavrilov, L. V.; Nikolayev, V. I.; Temnov, V. N.

ORG: None

TITLE: Results of a study on working conditions of operators

SOURCE: Sistema chelovek i avtomat (Man-automaton systems). Moscow, Izd-vo Nauka, 1965, 197-214

TOPIC TAGS: information theory, man machine ^{relation} ~~communication~~, automatic control system, information processing

ABSTRACT: Experiments are set up to explain the basic factors which affect the duration of time lost by operators in performing their tasks. ^u An experimental apparatus, OPERATOR, was constructed for this study. The results of this experiment show that information reception increases in proportion to the number of light signals. An expression is given for this relationship

$$\tau_{\text{rec}} = bH + a$$

Information reception time is not determined by input information presented by the apparatus
Card 1/2

L 36335-66

ACC NR: AT6012898

tus but by output information. With a greater quantity of information than $I=4.16$ binary units, the throughput capacity of the operator falls to $C=5$ binary units per second. It was shown that the throughput capacity of the subject approaches 5 binary units per second with an increase in the information stream for the given experiment as well as for the experiments with damped units. A study of communication and command efficiency under marine conditions shows that redundancy is greater for special technical language than for standard language (94% as compared to 60%). Orig. art. has: 13 figures and 27 formulas.

SUB CODE: 05 / SUBM DATE: 02Aug65 / ORIG REF: 003
09/

Card 2/2 *JS*

GAVRILOV, M.

Specific tuberculous epididymitis. Khirurgiia, Sofia 8 no.8:719-727
1955.

1. Oblastna transportna obedinena bolnitsa - Sofia. Zav. khirurgichno
otdelenie: St. Kirov.
(TUBERCULOSIS, MALE GENITAL,
epididymis)

GAVRILOV, M.

Cholelithiasis and diseases of the biliary tract according to material of a surgical ward of a branch of transportation medical services. Khirurgiia, Sofia- 13 no.2-3:180-182 '60.

(CHOLELITHIASIS surg.)

(BILIARY TRACT dis.)

KASHKAY, M.-A.; MUSTAFABEYLI, M.A.; GAVRILOV, M.

Conference on the exchange of experience in making large scale and
detailed survey maps. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk
no.3:145-147 '60. (MIRA 13:10)

(Geology--Maps)

L 10118-66 EWP(r)/EWP(w)/T/EWP(t)/ETI LIP(c) JD/MM/EM
 ACC NR: AP6019443 (N) SOURCE CODE: UR/0308/66/000/002/0036/0036
 AUTHOR: Gavrilov, M. (Engineer) 2/
 ORG: None B
 TITLE: Reducing vibrations^{1/4} of shallow tankers
 SOURCE: Morskoy flot, no. 2, 1966, 36
 TOPIC TAGS: shipbuilding engineering, marine engineering
 ABSTRACT: Vibration phenomena observed in shallow tankers used for navigation in Caspian Sea are discussed. The vibrations were observed in the stern frames above the screws causing the appearance of cracks in stern platings and deformations of bottom longitudinals, piping systems, etc. The author describes the investigations conducted by TsNIIP in cooperation with the Caspian Steamship Company on 14 tankers during navigation in deep and shallow water. The deficiencies in design and construction are examined and periodical hydrodynamical pressures exerted by the screw on the hull structure are considered to be the main source of vibrations. The measures for elimination of vibrations (reinforcement of bottom stiffness by means of additional longitudinal beams and installation of a water flow deflector above the screw) are mentioned and their effects are discussed. In general, the vibrations in shallow water are about 2.5 times greater than in deep water.
 SUB CODE: 13/ SUEM DATE: None
 Card 1/1 UDC: 621.123.534.1

KHADZHIIVANOV, Nikolai; GAVRILOV, Mikhail

External algebraic forms. Pt. 1. Godishnik fiz mat 56
no.1:139-160 '61/'62 [publ. '63].

GAVRILOV, Mikhail; CHOBANOV, Ivan

Index of the nonassociativeness of multiplicative structures.
Godishnik fiz mat 56 no.1:23-26 '61/'62 [publ. '63].

GAVRILOV, M. A.

USSR/Electricity
Fuses, Electric
Safety Devices

Dec 48

"Modernized High Rupture Capacity Safety Fuses,"
Docent B. I. Ayzenberg, Cand Tech Sci, M. A.
Gavrilov, Engr, Sevzapelektromontazh Trust; 14 pp

"Prom Energet" No 12

Describes fuse in detail, with sketch and table
of tests.

30/49752

8(3)

AUTHOR:

Gavrilov, M. A.

SOV/105-58-12-22/28

TITLE:

On the Method of Calculating Permissible Cable Excess Loads
(O metode rascheta dopustimyykh peregruzok kabeley)

PERIODICAL:

Elektrichestvo, 1958, Nr 12, pp 82-84 (USSR)

ABSTRACT:

Referring to the article by D. S. Livshits and S.M. Messerman, "On Permissible Cable Excess Loads in Emergency and Normal Methods of Operation" published in Elektrichestvo, 1958, Nr 7, it is shown that the general recommendations made in this article for the determination of permissible cable excess loads in emergency operations, as well as the quantitative overheating for concrete variants are not based on correct assumptions. There are 1 figure and 1 table.

Card 1/1

SOV/110-58-11-17/28

AUTHOR: Gavrilov, M.A. (Engineer)

TITLE: D.C. Measurement by a Clip-on Ammeter (Izmereniye postoyannogo toka bez razryva tsepi).

PERIODICAL: Vestnik Elektromyashlennosti, Nr.11, 1958, pp.60-62, (USSR).

ABSTRACT: The instrument described consists of a coil assembly, that can be clipped over the conductor in which the current is to be measured, and a flux-meter. The coil assembly comprises an insulating former bearing two uniformly distributed copper windings connected in series and to the flux-meter. To operate the instrument, the flux-meter is set to zero and the clips are closed around the conductor, so that the flux-meter measures the linkage between the windings and hence the magnetic field of the current in the wires. A brief mathematical analysis of the instrument performance is given. It is claimed that if the clip-on coil assembly is well made the error of measurement is determined principally by the error of the flux-meter. This method has been

Card 1/2

SOV/110-58-11-17/28

D.C. Measurement by a Clip-on Ammeter.

used to measure currents of up to 4000 A in the
manufacture of aluminium where other methods could not
be applied. There are 3 figures.

SUBMITTED: December 2, 1957.

1. Electric current--Measurement.
2. Ammeters--Performance
3. Ammeters--Equipment

Card 2/2

GAVRILOV, M. A.

"Telemechanization of Dispatcher Control in Power Systems, " 1938.

WAKHIDOV, N. A.

Institute of Automatics and Telemechanics, Academy of Sciences, USSR (-1945-)

"Determining Number of Contacts in Circuits of Contact-Relay Deciphering Machines, and their Distribution in the Relay."

No. 12, 1945.

Iz. Ak. Nauk, SSSR. Otdel. Tekh. Nauk.

52059019.

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>SA</p> <p>65 64 7</p> <p>Analysis of relay-switching schemes. GAYKIDOV, M. A. <i>Elektricheskoe</i> (No. 4) 5-13 (1947) In Russian.—An analysis based on symbolic algebra. All functions considered have two numerical values only, unity, corresponding to the appropriate circuit being closed, or zero, the circuit being opened. Both analysis and synthesis of typical relay networks are shown by means of matrices, as is the determination of the sequence of operation. A. L.</p> <p>ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>																			

GAVRILOV, M. A.

PA40T88

USSR/Physics
Telemechanics
Regulators

Sep/Oct 1947

"Development of the Telemechanics Industry in the USSR," M. A. Gavrilov, 7 pp

"Avtomatika i Telemekhanika" Vol VIII, No 5

First operating telemechanic installation for industrial purposes in the USSR was in 1932-1943. Development of the technics of telemechanics in theory and practical work since that time is presented. Reference to its importance in several industries is made and persons important in developing telemechanical theory and practical application are mentioned.

LC

40T88

GAVRILOV, M. A.
Gavrilov, M. A. On a general method of transformation of
relay-contact schemes. Avtomatika i Telemekhanika 8,
89-107 (1947). (Russian)

A large number of identities for Boolean functions are
presented and are interpreted in terms of switching net-
works. Under special circumstances such identities can be
used to transform a switching network into an equivalent
network using fewer contacts.

E. N. Gilbert.

Source: Mathematical Reviews,

Vol 11 No. 10

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Gavrilov, M. A.

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Gavrilov, M. A. The structural classification of relay-
contact schemes. Avtomatika i Telemekhanika 8, 297-
307 (1947). (Russian)

Relay networks are classified into eleven different types.
The type depends on the possible behavior of the network
(whether or not the network can be made to chatter, lock
in some of its relays, etc.) and can be deduced from a circuit
diagram with the aid of certain structural matrices.

E. N. Gilbert (Murray Hill, N. J.).

Source: Mathematical Reviews,

Vol 12 No. 9

PT

GAVRILOV, M.A. and GLUZMAN, I. S.

"Utilization in STsB of Analytical Methods for Constructing Schemes,"

Avto i Tele, 1X, 1 . 48

PA 18/49T17

USSR/Electricity
Relays, Electric
Circuits, Bridge

Nov/Dec 48

"Construction of Relay-Contact Circuits With
Bridge-Type Links," M. A. Gavrilov, Inst of
Automatics and Telemekh, Acad Sci USSR, 14 pp

"Avtomat i Telemekh" Vol IX, No 6

Subject circuits contain minimum number of elements
necessary for performance of given functions. Most
effective way to determine possibility of using
bridge-type links is location of so-called "ini-
tial" and "terminal" elements in elementary

18/49T17

USSR/Electricity (Contd)

Nov/Dec 48

structural formula, and determination of their
links in the circuit. Investigates circuit structure
with bridge-type links, and describes method for
their assembly. Discusses method of constructing
subject circuits with recurrent or conflicting
elements.

Submitted 27 Apr 48

18/49T17

Gavrilov, M. A. Transformation of relay-contact schemes of class H. Doklady Akad. Nauk SSSR (N.S.) 59, 1579-1582 (1948). (Russian)

The author regards a complicated relay-contact scheme as a collection of simpler relay networks X_1, \dots, X_n which have been interconnected. When the interconnections are of certain particularly simple types (analogous to series or parallel connections) the algebra of logic may be used to describe the scheme directly in terms of the X_i and to transform it to equivalent circuits built up of the X_i without first transforming to an equivalent series-parallel relay scheme.

E. W. Gilbert (Murray Hill, N. J.).

Source: Mathematical Reviews,

Vol 10, No. 1

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3383. Relay-contact decoders using several impulse digits. GAVRILOV, M. A. Avtomat. i Telemekh. 10, 157-63 (1949) in Russian.—An analysis of the existing types of decoders used in telecontrol and signaling. Factors governing the performance of the decoders are studied. The impulse utilization coefficient, determining the number of impulses necessary for the transmission of a given number of signals, gives an estimate of the transmission time and number of communication channels required, which again is necessary for compiling the signals of the code. The method of determining the necessary number of contact springs of the system is explained. Decoders for all combinations and for a single combination, with protection against interruption of the circuit and against faulty transmission outside the decoding circuit are fully analyzed. B. P. K.																																																																															
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GAVRILOV, M. A.

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Gavrilov, M. A. Concerning the analysis of relay-contact schemes. Doklady Akad. Nauk SSSR (N.S.) 69, 181-184 (1949). (Russian)

The paper contains examples of the use of expansion theorems on Boolean functions in the analysis of switching networks. E. N. Gilbert (Murray Hill, N. J.).

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Source: Mathematical Reviews, 1950 Vol 11 No. 8

Gavrilov, M. A.

*Gavrilov, M. A. Teoriya releino-kontaktnykh shem.
[Theory of Relay-Contact Schemes]. . Izdat. Akad.
Nauk SSSR, Moscow-Leningrad, 1950. 303 pp.

This is the first book to be published on the theory of switching circuits. The author has tried to present a theory which applies to as many as possible of the different kinds of switching circuits in common use. Simple combinational circuits, relay circuits with various kinds of sequential behavior, circuits using rectifiers, and circuits using special purpose switching elements such as selector switches, relays with multiple windings, marginal relays, relays with "make before break" contacts are all discussed with the aid of Boolean algebra.

The book starts with introductory chapters describing the different kinds of switching circuits. Then the algebra of logic is introduced and applied to the analysis and synthesis of switching networks. A large part of the book is devoted to the problem of transforming a switching network into an equivalent simpler network; these results necessarily are applicable only under fairly restrictive circumstances. The last chapter is devoted to the synthesis of some practically useful networks (decoding circuits, adders, etc.). Much of the material given is drawn directly from the author's own papers on switching. A large number of examples are worked out in the text and the book is well illustrated with 217 diagrams.

E. N. Gilbert.

Source: Mathematical Reviews,

Vol. 12, No. 3

GAVRILOV, M. A.

Gavrilov, M. A., and Hvoščuk, V. A. The method of partial inversion in relay schemes. Doklady Akad. Nauk SSSR (N.S.) 75, 685-687 (1950). (Russian)

Two examples are given in which planar relay circuits may be transformed into equivalent circuits by the following process: (1) the dual network is drawn, and (2) certain parts of the dual network are replaced by their duals. The proper way to choose the parts to be dualized in (2) seems to depend on guesswork. *R. N. Gilbert* (Murray Hill, N. J.).

Source: Mathematical Reviews,

Vol 13, No. 9

GAVRILOV, M. A.

Determining the Sequence of Operation of Elements in Relay Systems, M.A.
Gavrilov, Avtomat i Telemekh, Vol 13, No 5, pp 583-592, Sep/Oct 52.

Gives a method for determining the sequence of operation of elements in relay systems. Method is based on the analysis of structural formulas of the circuits operating on these elements. Submitted 3 Mar 52.

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